

SOME NOTES ON THE NOMENCLATURE OF CERTAIN COMMON SPECIES  
OF *EUCALYPTUS*.

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(Plate iv.)

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In "A Key to the Eucalypts" (1934) W. F. Blakely not only describes many new species and varieties in the large and perplexing genus *Eucalyptus*, but also makes certain changes in the nomenclature of a few well known species. Some of these changes had already been made by continental botanists during the preceding few years, but had passed more or less unnoticed. Others were made by Mr. Blakely himself.

The names which it is proposed to abandon are now in general use and have been so for 50 years or more. Under these names some of the species are widely known to foresters and timber merchants. Their change, then, is not a matter lightly to be undertaken.

The changes are:

<i>E. corymbosa</i> Sm.	to <i>E. gummifera</i> (Gaert.) Hochr.
<i>E. rostrata</i> Schlecht.	to <i>E. camaldulensis</i> Dehnh.
<i>E. tereticornis</i> Sm.	to <i>E. umbellata</i> (Gaert.) Domin.
<i>E. crebra</i> F.v.M.	to <i>E. racemosa</i> Cav.
<i>E. coriacea</i> A. Cunn.	to <i>E. pauciflora</i> Sieb.
<i>E. robusta</i> Sm.	to <i>E. multiflora</i> Poir.

In 1935 an attempt was made to conserve the names by appealing to the Nomenclature Committee of the International Botanical Congress to establish a list of *nomina specifica conservanda*. This the Committee did not see its way to recommend.

When in Europe during 1936, I took the opportunity of visiting certain herbaria and consulting with the authorities about these changes. The following notes have been compiled in the hope that they will be of service to workers on the genus, especially in Australia. Two of the proposed changes are shown to be invalid, and a third must await further evidence. In the remaining cases, the validity of the change is upheld. Photographs of the herbarium sheets of two important specimens are published. These specimens, though not actual "types", are probably as near to being so as we can hope after such a long interval of time. In one case, the change of *Eucalyptus rostrata* to *E. camaldulensis*, it is hoped that the evidence submitted will provide further argument for the conservation of certain long established specific names.

My thanks for facilities afforded me are due to the Director of the Royal Botanic Gardens, Kew; the Keeper of Botany, the British Museum of Natural History; the Linnean Society of London; the Keeper of the Botanical Department, Natural History Museum, Vienna; the Director of the Botanical Laboratory of the National Museum of Natural History, Paris. I am specially grateful to

Mr. V. S. Summerhayes for his kindness to me when working in the Herbarium at Kew.

*Eucalyptus gummifera* (Gaert.) Hochr. replacing *E. corymbosa* Sm.

The synonymy is given by B. P. G. Hochrentiner in his paper "Plantae Hochrentineranae II", *Candollea*, vol. ii, 1924-5, pp. 317-513. On p. 464 (publ. Aug., 1925) he states: "*E. gummifera*. Hochr., comb. nov. = *Metrosideros gummifera* Gaert., De Fruct. 1, 17 & 34 (1788) = *E. corymbosa*, Sm., Bot. of N. Holl. 1, 43, 1793, id. in Trans. Linn. Soc. Lond. iii, 287 (1797), . . ."

Hochrentiner notes: "Whilst it is very annoying to change a well-known name, it is impossible here not take up Gaertner's name which corresponds exactly to our species. Maiden himself says in his Monograph about Gaertner's drawing, 'unmistakable drawings of the fruit' [Maiden, Critical Revision, iv, p. 244] . . ."

In the Banksian Herbarium of the British Museum there is a single sheet of this species collected by Banks and Solander at Botany Bay in 1770. By the courtesy of the Keeper of Botany, I am able to reproduce a photograph (Pl. iv, fig. 1), which he kindly had made for me, of this specimen. It is labelled in Robert Brown's handwriting:

"*Euc. corymbosa*

*Metrosideros gummifera*

Gaert.

Botany Bay. J.B. & D.S."

Reference to the figure shows that the larger leafy shoot has only one mature fruit, the smaller has immature fruits. That there are not flowers is hardly surprising since Banks and Solander were at Botany Bay between 28th April and 8th May, which is after the usual flowering season, January-March.

The presence of but one ripe fruit may be due to the fact that a specimen or specimens of the fruit had been sent to Gaertner from the Banksian collection. These were evidently forwarded by Solander with the comment that the plant has a rough bark. Gaertner writes: "*Metrosideros gummifera*, cortice rugoso, Soland. MSS. Ex herbario Banksiano cum sequentibus." Then follows a full description, in Latin, of the fruit, seed and embryo, together with a reference to the "unmistakable drawings" referred to above.

Sir E. J. Smith had much more adequate material. In the Smith Herbarium at the Linnean Society, London, is a full sheet, with one panicle in full bloom, another with buds and opened flowers and some immature fruits. It is labelled in Smith's handwriting:

"Port Jackson, N.S.W. Mr. White 1793

*Euc. corymbosa* Bot. of N. Holland p. 43."

Further material distributed by Smith is in the British Museum (sheet numbered 124/32) and endorsed:

"N.S.W. Port Jackson. White (Dr. Smith)

*Euc. corymbosa*. Smith. New Holl. 43.v.6."

Kew also has a specimen showing leaves and flower buds, with "Presented by Sir E. J. Smith" written on the sheet.

The Banksian Herbarium is rich in specimens of this species. Some of them are of great historic interest. In addition to the crucial specimen of Banks and Solander, there are three sheets of R. Brown's collecting at Port Jackson 1802-1805, Caley's specimens, with field labels, dated 1804-1807, and one collected by A. Cunningham.

Maiden (l.c., p. 246) says he saw certain "historical specimens". Two were in the herbarium of the Botany School at Cambridge, and one at the Barbey-Boissier Herbarium, Geneva. A fourth, in which herbarium he does not state,

was of Robert Brown's collecting. This, he says, is numbered 4777. A specimen of Brown's with this number is in the Banksian Herbarium. It has the field label in Brown's handwriting: "Eucalyptus blood tree Port Jackson 1804".

If this was the specimen of No. 4777 that Maiden saw, it is curious that he did not notice the sheet in the same folder bearing Banks' and Solander's specimen. It is a reasonable assumption that it was from this specimen that Gaertner received his fruits.

In accepting Hochrentiner's new combination in place of the better known name for the common bloodwood of the Port Jackson district, one notes that the original description is based on the fruits only, except for the field note that the 'bark is rough'. It is perhaps some consolation that the name *gummifera* was apparently suggested by Solander himself.

*Eucalyptus camaldulensis* Dehnh. replacing *E. rostrata* Schlech.

This plant was described by Frederick Dehnhardt on page 20 of his "Catalogus Plantarum Camaldulensis" published at Naples in 1832 (2nd edition). The catalogue is a twenty-four page quarto pamphlet. It is apparently rather scarce, but there are copies in the libraries of the Botanical Departments of the British Museum, South Kensington, and in the Natural History Museum, Vienna.

Maiden (Critical Revision, iv, p. 66) quotes Dehnhardt's Latin diagnosis in full. He continues: "A specimen of the above in bud, communicated by Dehnhardt himself to the Vienna Herbarium, and seen by me, is *E. rostrata*." In October last, I visited Vienna to see this specimen. By kind permission of the Keeper, Hofrat Dr. K. Keissler, I had the sheet photographed (Pl. iv, fig. 2).

There are two leafy shoots, each with umbels of buds, but no expanded flowers or fruits. The operculum is conical rather than rostrate, i.e., it agrees with the conoid types figured by Maiden (l.c., Pl. 137, figs. 4a, 10, 12a) rather than the typical acutely rostrate form. In the Vienna collection are specimens communicated by Max Koch from Mt. Lyndhurst (S. Aust.) having the same type of bud. Maiden had no doubts as to the identity of the plant. His pencilled note "rostrata" appears on the sheet, as well as the printed label seen in the photograph.

There is also pasted on to the sheet a label in an old German script, possibly that of Dehnhardt himself. Maiden (l.c., p. 46) gives a not quite accurate translation of this. It is as follows: "*Eucalyptus camaldulensis* Dehnh.—Bekam ich unter dem Namen *E. persicifolia*; da ich aber späterhin den echten *E. persicifolia* bekam, bemerkts ich eine himmelweite Verschiedenheit, habe ihn auch an keinen anderen annähern können. Er is 40 fuss hoch. [Hort. Camaldul. Dehnhardt]." The words in square brackets are added in a later hand.

A free translation of this note is: "I received this under the name of *E. persicifolia*; then later on I received the true *E. persicifolia*, I noticed an exceedingly great difference, further I could not approximate it to any other species. It is 40 feet high."

Maiden gives no reason for the suppression of Dehnhardt's name, which was validly published 15 years before Schlechtendahl's. Ewart (*Vict. Naturalist*, lii, 1935, p. 64) says of *E. camaldulensis*, "The name appeared in a European Botanic Gardens list before the plant was properly described". This is hardly fair. A Latin diagnosis was published and the author communicated a specimen to one, at least, of the great herbaria of his time.

While the validity of the change is unquestionable according to the rules of Botanical nomenclature, the complete evidence provides, it seems to me, a strong argument for the establishment of a limited list of *nomina specifica conservanda*.

The plant known as *Eucalyptus rostrata* for the past 90 years is perhaps the most widespread eucalypt in all Australia. It occurs in every State except Tasmania. Under the name of *rostrata* it is cultivated in many parts of the world, for it is a valuable forest tree. Yet, because an Italian garden about 110 years ago received a batch of seed from some (today) quite unknown source under a wrong name the apt name *rostrata* becomes a synonym and an awkward, and to a large extent meaningless, name, *camaldulensis*, has to be substituted for it!

But, without special steps to conserve it, the name *rostrata* will have to go. In 1797, Cavanilles (Icones, iv, p. 23 and fig. 342) described *Eucalyptus rostratus*, which is a synonym of *E. robusta*, Sm. Under the International rules of nomenclature, Cavanilles' grammatical mistake preempted the name; *rostrata* was not available for use by Schlechtendahl in 1847.

*Eucalyptus tereticornis* Sm., Bot. New Holl., 1793, p. 41.

Domin in 1928 changed this to *E. umbellata* (Gaert.) Domin. (*Bibl. Bot.*, lxxxix, p. 467, which is p. 1021 of Domin's Beiträge zu Flora etc.). He cites: "*Leptospermum umbellatum* (Gaertn.) Fruct., i, 174, t. 35, fig. 3, 1788." and has the following footnote: "Non Dum.-Cours., species obscura, sec. Bentham omnino neglegenda."

But, however obscure Dumont-Courset's description of *E. umbellata* may be, it is still the technical description of a eucalypt. The name *umbellata*, therefore, is already occupied and Domin was not justified in his change.

*Eucalyptus crebra* F.v.M., Journ. Linn. Soc., iii, 1859, p. 87.

Blakely takes up Cavanilles' name *E. racemosa* (Icones, iv, 1797, p. 24), but, unless an authentic specimen of this plant can be found, there is not sufficient evidence to do so. Bentham (Fl. Austr., iii, p. 200) says, "far too imperfectly described to render identification possible". Maiden (Crit. Revis., ii, p. 63) agrees. I made a search in the herbaria of Kew, the British Museum, the Linnean Society, and Natural History Museum, Paris, for any specimen of Cavanilles' *E. racemosa* that might have been communicated by him, but without success. If the herbaria in Madrid survive the present unhappy disturbances, it may be that one will be found there. At present there is no justification for dropping von Mueller's name.

*Eucalyptus pauciflora* Sieber replacing *E. coriacea* A. Cunn.

The description of Sieber's plant, No. 470, was published in Sprengel Syst. iv Cur. Post., 1827, p. 195. There are specimens of his collecting bearing this number in the Kew and British Museum Herbaria. Maiden (Crit. Revis., i, p. 135) states that he has also seen a specimen of 470 in the herbarium Barbey-Boissier, and that it is *E. coriacea* A. Cunn.

Cunningham's plant No.  $\frac{35}{1824}$ , is in the Kew Herbarium, named in Cunningham's own hand-writing. But no description was published until 1843, when Schauer's contribution to Walper's Rep. Bot. Syst., ii, appeared.

It is hard to understand Maiden's comment (l.c., p. 133) that Sieber's name has "doubtful priority". It was properly published in 1827, whereas Cunningham's name did not appear in print until 16 years later. Maiden's comments on the suitability or otherwise of the names are irrelevant.

*Eucalyptus robusta* Sm., Bot. New Holland, 1793, p. 39.

Blakely changes the name to *E. multiflora* Poiret, giving the year 1785 as that of publication. This is based on a misapprehension. Poiret's description appears

